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The relationship between time spent on facebook and cumulative grade point average (CGPA) among third year Biomedical Science students in Faculty Health Sciences, UKM

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Abstract

Social networking site Facebook is the latest online avenue for social interactions. Facebook commands a lot of popularity among the students. This study was conducted to determine the relationship between time spent on Facebook and the Cumulative Grade Point Average (CGPA) of third year Biomedical Science students in the Faculty Health Sciences, Universiti Kebangsaan Malaysia. A cross sectional study was carried out and the tools to collect information were close ended questionnaire. The study found that there was no significant correlation between time spent on Facebook and students CGPA; $r = 0.152$, $p = 0.185$. There is no significant difference CGPA between gender $p > 0.05$ and there is significant difference between race $p < 0.05$. It can be concluded that the FSK students' CGPA achievement was not significantly associated with the time spent on Facebook.

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Keywords: Academic achievement; CGPA; facebook; time spent

1. Introduction

Man is a social creature and depends a lot on his interactions and socialization with fellow men. In the past few decades, these interactions have been made easier by the advent of technologies such as the internet. Socializing via the internet has become an increasingly important part of a young adult life (Gemmill & Peterson, 2006). Relative to

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the general population, adolescents and young adults are the heaviest computer and internet users for completing school assignments, e-mail and/or instant messaging and playing computer games (DeBell & Chapman, 2006). Social networking sites are the latest online communication tool that allows users to create a public or private profile to interact with people in their networks (Boyd & Ellison, 2008). Facebook was created by Mark Zuckerberg to help residential college and university students identify students in other residential halls (Zuckerberg, 2005). Facebook boasts over 500 million members and it is still growing. The use of social media sites is growing among undergraduates, as is the time spent exploring such sites. A total of approximately 85% of undergraduate students are Facebook users (Schneider, 2010). As a result of its popularity among the youth, particularly the college going youth, there has been a lot of debate on whether technology in general and Facebook and other social networking sites in particular have any impact on academic performance. The objectives of this study were to find out the Cumulative Grade Point Average (CGPA) achievement of students by gender and race, and to identify the purpose of using Facebook, and to determine the relationship between time spent on Facebook and CGPA achievement. The present study was conducted among third year Biomedical Sciences students in the Faculty Health Sciences (FSK), Universiti Kebangsaan Malaysia (UKM).

2. Methodology

A cross sectional study was conducted at FSK, UKM. The questionnaire consists of demographic information, current CGPA, average time spent on self study and Facebook per week, average time spent on internet, gadget used for internet surfing and purpose of using Facebook. It was distributed to all third year Biomedical Sciences students (81 students) during the second semester of the academic session 2010-2011. Universal sampling method was employed in the study. Student t-test was employed to compare mean CGPA of students by gender and races. The relationship between average time spent on Facebook and CGPA was analyzed using Spearman Correlation test.

3. Results

The study found that the female and male students were 70.5 % (n=55) and 29.5 % (n=23) respectively as shown in figure 1 and the Chinese students (54%) followed by Malays (41%), Indians and Sarawakian were 4 % and 1 %, respectively as shown in figure 2.

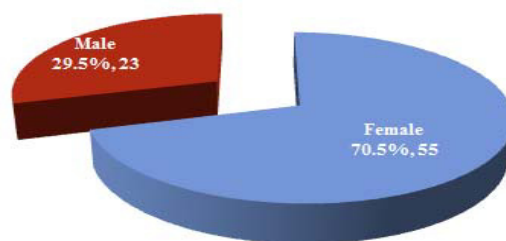


Figure 1: Distribution of student by gender

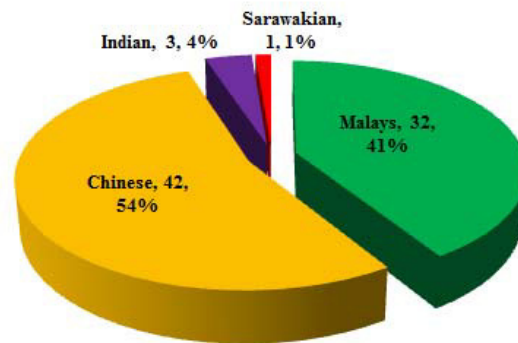


Figure 2: Distribution of student by race

The purposes of Facebook usage mentioned by the students are shown in Figure 3. Most students used Facebook for chatting and wall post ($n=52$) and the least use was for business ($n=7$). Table 1 showed the students' mean CGPA achievement by gender and race. Mean CGPA for Chinese students was 3.41 ± 0.28 and the non Chinese was 3.03 ± 0.23 .

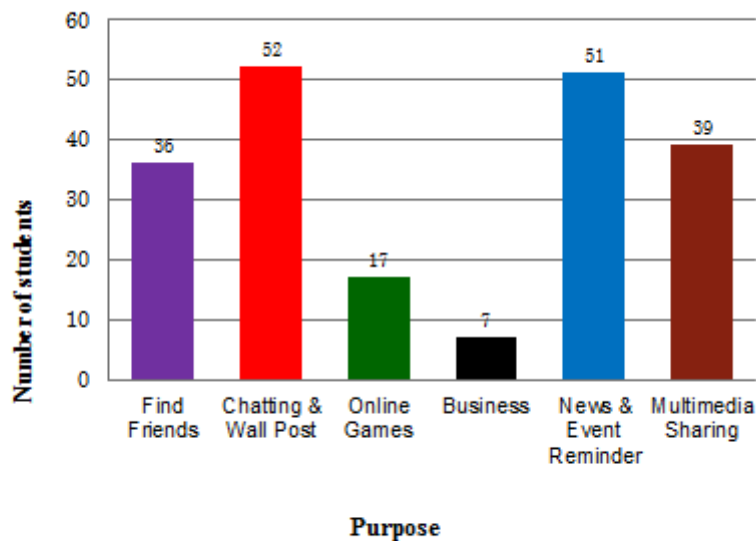


Figure 3: Purposes of using Facebook

Table 1. Distribution of mean CGPA students by gender and races

| n | Mean CGPA \pm SD | t | p |
|---|--------------------|---|---|
|---|--------------------|---|---|

Gender

| | | | | |
|---------|----|-------------|-------|-------|
| Male | 55 | 3.24 ± 0.35 | 0.244 | 0.808 |
| Female | 23 | 3.22 ± 0.38 | | |
| Race | | | | |
| Chinese | 42 | 3.41 ± 0.28 | 5.733 | 0.001 |
| others | 36 | 3.03 ± 0.23 | | |

Table 2 shown, that the comparison of CGPA among students between races shows the difference significant $P < 0.05$, anyway there is no significant difference between gender $p < 0.05$. The study also found that there is no correlation between time spent on Facebook (median 7.5 hours: 0.5, 64) and student's CGPA (median 3.29: 2.5, 3.83) with $r = 0.152$, $p > 0.05$ (table 2). The study revealed that the purposes of using Facebook for chatting & wall paper ($n = 52$) and news and event reminder ($n = 51$). Only small number of student did it for business ($n = 7$) (figure 3).

Table 2. Correlation between CGPA and time spent on Facebook per week

| Time Spent on Facebook per week | | |
|---------------------------------|-------------|-------------|
| CGPA | $r = 0.152$ | $p = 0.185$ |

* Spearman Correlation

4. Discussion

There were 78 Facebook users and 3 non-users. Mean CGPA by races show a higher CGPA value among Chinese.

Facebook was used for a variety of purposes. The main purpose of using Facebook was for chatting and wall post (52) followed by news and event reminder (51). This corresponds with study by Madge et al. (2009) majority used Facebook for chatting purposes. However, Madge's study found that the reason for chatting is purely for social reasons and not for academic purposes. However, this study did not investigate the purpose for chatting. The result of this study was similar to the study by Madge et al. (2009) that the purpose of using the Facebook is not limited to a single purpose.

However, this study showed that time spent on Facebook did not have correlation with CGPA. A study by Kolek and Saunders (2008) showed similar findings. There were no difference of CGPA achievement, similar finding was shown by Bjerregaard (2010) in her study. She found there was no different between Facebook users and drop in the CGPA achievement. Her study involve subjects using the Facebook for more than 1 hour and those less than 1 hours per day as non-users. In this study, we did not exclude the subjects with less than 1 hour spent on Facebook.

A study by Karpinski and Kirschner (2010) found that 'more time spent on Facebook equals slightly lower grades'. In Karpinski's study the average Facebook user had a GPA of 3.0 - 3.5, while the non-user had a GPA of 3.50 - 4.00. The average Facebook user studied for 1-5 hours per week, while non-Facebook user would study 11 - 15 hours per week. The main finding was that a significant negative relationship exists between Facebook use and academic performance. Facebook users reported lower mean GPAs and reported spending fewer hours per week studying on average than non-Facebook users (Karpinski, 2009). Facebook users and non-Facebook users reported comparable percentages of average daily internet use; however the nature of the internet activities was not delineated in the study.

Pasek et al. (2009) conducted a study to show a reverse in the negative relationship between Facebook and academic achievement done by Karpinski(2009) that had generated a great deal of media attention. Pasek et al (2009) suggested that facebook users were no more or less lightly to get good grade than non-users. Study by Pasek et al.(2009) was a more thorough. Three different samplings were done; the first study was a cross-sectional study on first year students from University of Illinois in Chicago, and thesecondstudy involved the National Annenberg Survey of Youth (NASY) where a random digit dialing method was used on 14 to 22 year olds with parental permission. The third study in 2008 was a longitudinal study.Involvingthe same 415 respondents from the second study and 835 new respondents. For all these three studies, age, gender, race/ethnicity and socio-economic status were controlled. The first sample did not show a significant relationship between Facebook and GPA (Pearson's $r=0.10$, $p=0.746$). However, the NASY cross sectional studies showed a significant positive correlation without controls (Pearson's $r=0.122$, $p= 0.002$) but the NASY studiesshowed a negative correlation (Pearson's $r=-0.148$, $p=0.010$). Hence, the results of these studies generally suggest that there is no negative relationship between Facebook use and academic performance.

Another studywas conducted by Stollak et al. (2011) to assess the impact of social networking usage on grades among college students with negative correlation between Facebook and academic achievement. An online questionnaire was sent by e-mail to all students at a small Arts College in the Midwest, USA. The time spent on social networking sites was mostly on Facebook (78.3%) majority of students (77.2%) spent more than 30 minutes a day (Stollack et al., 2011). Interestingly the study also found that students with GPA below 2.5 spent an average of 61 to 90 minutes a day on Facebook while those with a GPA of between 2.50-3.00 and 3.00– 3.50 spent an average of 46 to 60 minutes a day where as students with a GPA of 3.5 or higher were found to spend an average of 31 to 45 minutes a day.

In summary, the differences in methodologywill have different result, such as online questionnaire (Stollak et al., 2011), questionnaire via random digital dialing telephone method (Pasek 2009), directinterview (Karpinski 2009); will have different results. Our study interesting similar to study by Karpinski in 2009 but the results were different. Result fromKarpinski's study showed negative correlation but our study on Biomedical Science students showed no influence time spent on Facebook on their CGPA achievement.

5. Conclusion

No difference in using Facebook between male and female. The different only found out between races. Small number of students using Facebook for business purposes most of Biomedical Science students using for chatting and wall post. The time spent on Facebook is notinfluenced Students' CGPA achievement on Biomedical students at FSK, UKM.

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